AP MACROECONOMICS • HOLIDAY HOMEWORK 假期作业

# 4 Banks and monetary policy – Part 2

Name: ____________ Class: ________ Date: __________

## Vocabulary 词汇

*Write each word three times.* 把每个单词抄写三遍。

| English | 中文 | Write it 3 times (English) |
|---|---|---|
| fractional reserve | 部分准备金 | |
| Monetary policy | 货币政策 | |

## Recall

In Part A you met money and interest rates. Now banks and the central bank:

- Banks lend out most of the money you deposit.
- The central bank can change the money supply to steer the economy.

Each idea has a worked example before the Practice.

## New ideas

### 1 How banks create money

Banks keep only a **fraction** of deposits as reserves and lend the rest – a **fractional reserve** 部分准备金 system. The loans get re-deposited and re-lent, expanding the money supply by the **money multiplier**:

$$\text{money multiplier} = \frac{1}{rr},$$

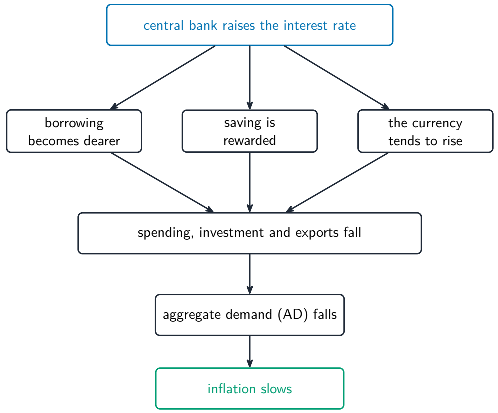
where $rr$ is the required reserve ratio.

*Worked example.* With $rr = 0.10$, a new \$1000 deposit can expand the money supply by up to $1000 \times \frac{1}{0.10} = \$10{,}000$.



### 2 Monetary policy

**Monetary policy** 货币政策 is the central bank's use of the money supply to steer the economy, working through the interest rate.




- **expansionary** (more money → lower rates → more borrowing and spending) fights recession,
- **contractionary** (less money → higher rates) fights inflation.

### 3 The chain of effects

More money supply → lower interest rate → more investment and consumption → aggregate demand shifts right → higher output.

**Watch out:** the money multiplier is **largest when banks keep the smallest reserves** (a low reserve ratio). A higher reserve requirement means banks lend less, so the money supply expands by a smaller factor.

## Practice

Try these in order. The methods are all above.

**2.1** Explain how banks create money in a fractional reserve system. [2]

**2.2** With a required reserve ratio of 0.20, find the money multiplier. [2]

**2.3** A \$500 deposit is made with $rr = 0.20$. Find the maximum expansion of the money supply. [3]

**2.4** State whether expansionary monetary policy raises or lowers interest rates, and what it is used to fight. [2]

**2.5** Trace the chain from a rise in the money supply to a rise in output. [2]